

ABSTRACT

This invention is advantageous in irradiating pallets which cannot be irradiated by conventional techniques, even by x-rays, throughout their complete volumes. In one embodiment, a scan horn scans electron beamlets through a sweep angle. A dipole bends the electron beamlets to focus the electron beamlets at the pallet center. After being bent, the beam becomes converted to x-rays which are irradiated through the pallet to the pallet center. During this irradiation, the pallet is moved in a direction substantially perpendicular to the irradiation. In this way, a quarter of the pallet is irradiated. When the quadrant radiation is completed, the radiation is interrupted and the pallet is rotated 90° to have a second side of the pallet face the radiation. The operation is sequentially repeated for each of the pallet sides. The four (4) irradiated quadrants define the pallet's complete cross-sectional area.